

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (Withdrawn)

2. (Withdrawn)

3. (Currently Amended) A recording method for using a plurality of coding tables to subject an input data word of ~~p~~-bits 8 bits to ~~p-q~~ 8-15 modulation and to thereby obtain a code word of ~~q~~-bits ~~(q>p)~~ 15 bits, in which said plurality of coding tables store the code words corresponding to the respective input data words, and state information indicating the coding table for use in modulating a next input data word to obtain a next code word satisfying a predetermined run length restriction rule even with the next code word coupled directly with the code word, and a recording signal generated by inserting a synchronous signal for decoding reproduction data into every predetermined number of code words in a string of the code words satisfying said predetermined run length restriction rule and to be outputted is outputted on a recording medium side or a transmission medium side, said method comprising ~~steps of:~~

adding auxiliary information including a sector address and a parity by a product code to said input data word continuously inputted to constitute an ECC block;

subjecting said input data word in a format signal formatted in a predetermined format with respect to the ECC block to the ~~p-q~~ 8-15 modulation to generate a string of code words satisfying said predetermined run length restriction rule; and

inserting the synchronous signal including a bit pattern longer than a maximum run length of said predetermined run length restriction rule into every predetermined number of code words to generate the recording signal.

4. (Withdrawn)

5. (Withdrawn)

6. (Currently Amended) The recording method according to claim 3, further comprising:  
~~steps of~~

setting an  $n$  ( $n \geq 1$ ) consecutive ECC blocks as a set; and

repeating a processing for all rows of the respective ECC blocks, said ~~[[the]]~~ processing comprising ~~steps of~~ successively switching and arranging respective  $r$ -th rows of the respective ECC blocks and subsequently successively switching and arranging respective  $(r+1)$ -th rows in such a manner that respective first rows of the respective ECC blocks of the set are successively arranged on said recording medium or said transmission medium, and respective second rows are successively recorded/arranged.

7. (Currently Amended) The recording method according to claim 3, further comprising:  
~~steps of:~~

setting two consecutive ECC blocks as a set; and

repeating a processing for all rows of said two ECC blocks of each set, said processing

comprising ~~steps of~~ alternately switching odd-numbered data of a first row of one ECC block of the set and even-numbered data of a first row of the other ECC block by a data unit and arranging the data on said recording medium or said transmission medium, and subsequently alternately switching even-numbered data of the first row of one ECC block and odd-numbered data of the first row of the other ECC block by the data unit and arranging the data on said recording medium or said transmission medium.

8. - 38. (Withdrawn)